WATER QUALITY REPORT

City of Houston
Department of Public Works and Engineering

Water Standards Governed by Federal Agencies

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

SPECIAL NOTICE FOR THE ELDERLY, INFANTS, CANCER PATIENTS, PEOPLE WITH HIV/AIDS OR OTHER IMMUNE PROBLEMS:

You may be more vulnerable to certain microbial contaminants in drinking water than the general population. In particular, infection by Cryptosporidium is of concern. Infants, some elderly or IMMUNO-COMPROMISED PERSONS such as those who have undergone CHEMOTHERAPY for CANCER; those who have undergone ORGAN TRANSPLANTS; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or healthcare provider. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from:

Safe Drinking Water Hotline 800/426-4791 or your local Health Department or District 713/794-9181.

Questions You Have Asked Us

What is the reason for a change in taste and odor of the water?

Most changes are caused as the result of seasonal algae blooms in the surface water sources.

Is nitrate level in water a concern for the citizens of Houston?

No. While nitrate in drinking water at levels above 10 parts per million (ppm) poses a health risk for infants of less than six months of age, the City of Houston water is consistently below 1 ppm.

Has the City of Houston tested for radon?

EPA is currently preparing a standard for radon in which the City of Houston will be in full compliance. Testing of our wells conducted in 1995 showed an average radon level of 700 pCi/l in the aquifer. Water received at the tap will have significantly lower levels due to the short lived nature of radon.

Is there Giardia or Cryptosporidium in our water supply?

Giardia or Cryptosporidium is not found in deep wells, such as the City's, which are protected from surface water contamination. Since 1993, we have been routinely monitoring our rivers and treated water leaving our filtration plants for these two organisms. To date, we have detected no confirmed occurrences of either of these in any of our drinking water.

What about lead in tap water?

The City of Houston has conducted extensive tests over the past six years and concentrations have been less than half EPA's guidelines. Most lead occurs as the result of leaching from household plumbing particularly faucets. You can minimize your exposure by flushing your tap for 30 seconds prior to drinking.

What about arsenic levels?

EPA is reviewing the drinking water standard for arsenic recognizing that while traces of arsenic in the diet are beneficial, chronic exposure to concentrations greater than the maximum contaminant level (MCL) may cause health problems. The City of Houston's water is consistently less than 20 percent of the current MCL.

Customer Service

is our **#1** priority. We take pride in the water which is provided to our customers and are continually improving. To accomplish this goal. . . **we need your help.** Any time you find your water's quality below your expectations please contact us at **713/837-0600**.

(Beginning July 1, 2001, contact us through the new "Houston Help Line" by dialing 311.)

We'll respond promptly and professionally.

If other people, such as tenants, receive water from you, it is important that you provide this notice to them by posting it in a prominent location or by hand or mail delivery.

Please feel free to copy this report. Visit our web site: www.ci.houston.tx.us/pwe/utilities/waterprod.htm

Public and Educational tours of the City of Houston's Water Plant may be arranged by calling 713/330-2519.

City of Houston

Department of Public Works and Engineering

WATER QUALITY REPORT

2000

The City of Houston's drinking water meets or exceeds all Texas Natural Resource Conservation Commission (TNRCC) and Environmental Protection Agency (EPA) requirements.

Safe Drinking Water Act Amendments

Since October 1999, all community water systems are required to provide customers with an annual report on the quality of their drinking water. This information has always been available to the customer but now it will be distributed to the customer at the same time each year in a report form.

Sources of Drinking Water

The sources of tap water and bottled water include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in source water include: microbial, such as viruses and bacteria, inorganic, such as salts and metals, pesticides and herbicides, organic chemicals, including synthetic and volatile organic chemicals, and radioactive constituents.

Presence of Contaminants Does Not Necessarily Indicate That Water Poses A Health Risk

More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's **Safe Drinking Water Hotline 800/426-4791**.

City of Houston Water Sources

The City currently draws 67% of its treated drinking water from its four surface water treatment plants. These plants produced an average of 282 million gallons per day (MGD) in 2000. Surface water comes from the San Jacinto River, through Lakes Conroe and Houston, and the Trinity River through Lake Livingston. The remaining 33% comes from 197 permitted wells at 97 separate groundwater plants. These are very deep wells, producing water from the Evangeline and Chicot Aquifers, and are not vulnerable to any surface contamination.

2000* CONTAMINANTS DETECTED IN YOUR DRINKING WATER; NONE WERE ABOVE THE MCL

1. Main System 1010013

(Most City of Houston customers receive their drinking water from the Main System.)

CONTAMINANT (units)	MCLG	MCL (max. level allowed)	City of Houston SURFACE WATER	City of Houston GROUNDWATER	SOURCES OF CONTAMINANTS
Alpha emitters (pCi/l)	0	15	ND	3.8 (1998)1 site	Erosion of natural deposits
Arsenic (ppb)	N/A	50	ND	4.9 average 2.0 - 19.6***	Erosion of natural deposits
Atrazine (ppb)	3	3	0.42 average <0.21- 0.67	ND	Runoff from herbicide used on crops: found in surface water
Barium (ppm)	2	2	0.055 average 0.052 - 0.058 range	0.231 average 0.061 - 0.399 ***	Discharge of drilling wastes; erosion of natural deposits
Chromium (ppb)	100	100	ND	< 10 average <10 - 10 ***	Erosion of natural deposits
Copper (ppm)	AL=1.3	90 % below AL=1.3	0.146 at customer tap - none exceeded AL** (1999)	0.146 at customer tap - none exceeded AL** (1999)	Erosion of natural deposits; corrosion of household plumbing
Ethylbenzene (ppb)	700	700	ND	<0.5 average <0.5 - 3.6 detected ***	Petroleum products
Fluoride (ppm)	4	4	0.6 0.3 - 0.8 range	0.3 average 0.1 - 0.9 range	Water additive promotes strong teeth
Lead (ppb)	0	90% below AL=15	5.2 at customer tap - one exceeded AL** (1999)	5.2 at customer tap - one exceeded AL** (1999)	Erosion of natural deposits; corrosion of household plumbing
Nitrate (ppm)	10	10	0.41 average 0.21 - 0.81 range	0.11 average <0.01 - 0.49 ***	Runoff from fertilizer use; erosion of natural deposits
Selenium (ppb)	50	50	ND	<2.0 average <2.0 - 7.9 ***	Erosion of natural deposits
Total Radium (pCi/l)	0	5	ND	0.7 (1998) (1 site)	Erosion of natural deposits
Total Trihalomethanes (TTHMs) (ppb)	N/A	100	24 average (11 - 30 range) distribution system	24 average (11 - 30 range) distribution system	By-product of drinking water disinfection
Xylenes (ppm)	10	10	ND	<0.0010 average <0.0010 - 0.0140 ***	Petroleum products

**** 2000 data unless otherwise specified*** ***** Includes groundwater and surface water sites.*** ******Range of 73 entry points sampled 1998-2000***

TERMINOLOGY

Maximum Contaminant Level (MCL): The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available technology.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

MEASUREMENT DEFINITIONS

pCi/l=picocuries per liter(a measure of radioactivity);
ND=not detected;
NTU=nephelometric turbidity units;
ppm=parts per million;
ppb=parts per billion

MICROBIOLOGICAL AND PHYSICAL QUALITY

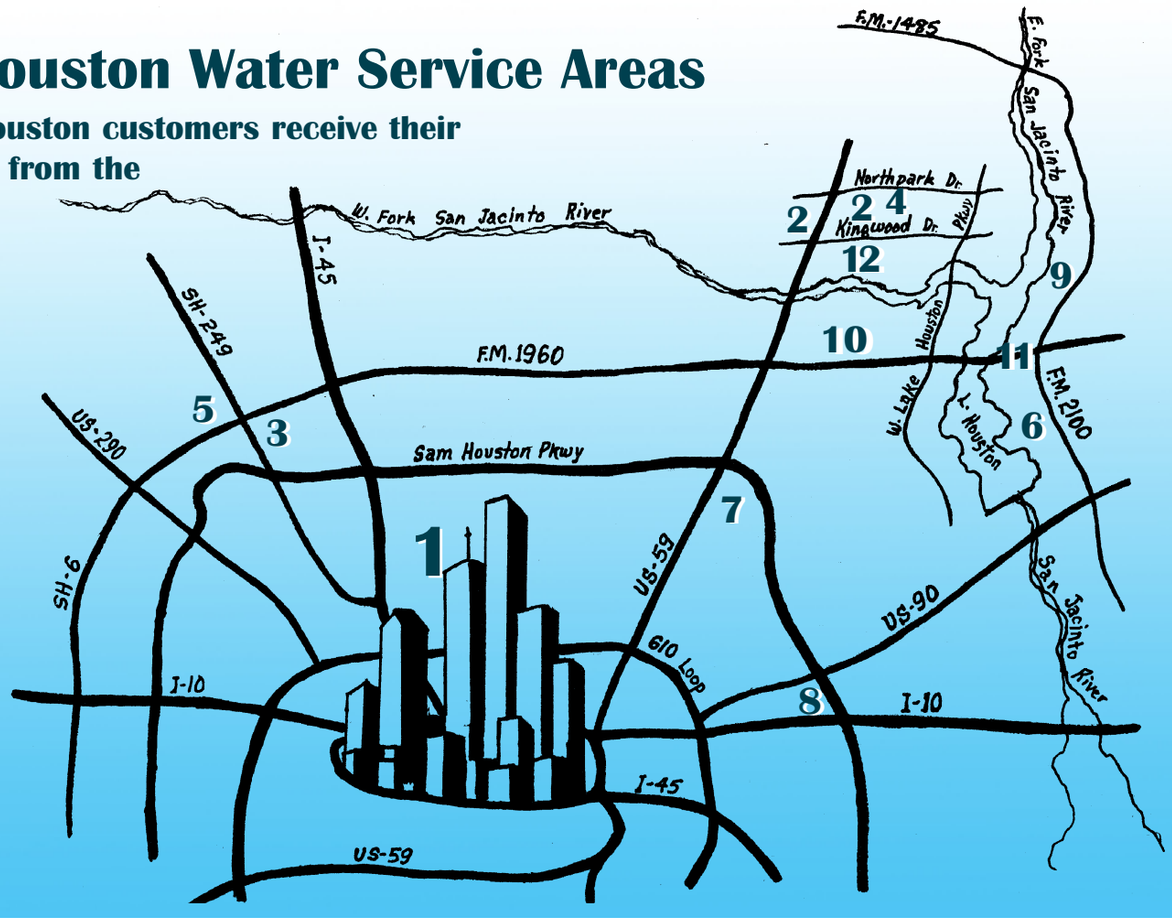
CONTAMINANTS (units)	MCLG	MCL (max. level allowed)	City of Houston	SOURCES OF CONTAMINANTS
Total Coliforms	0	Less than 5% positive	Highest monthly % of positive samples = 2.8	Naturally present in the environment
E. Coli	0	0	ND	Human and animal fecal waste
Viruses, Giardia, Legionella	0	TT	ND	Naturally present in the environment
Turbidity (clarity) (NTU)	No MCLG	95% less than or equal to 0.5	80% <0.10, 98.5%<0.20 range 0.02-0.29	Soil runoff

En Español

Este informe contiene información muy importante sobre de su aqua que bebe. Tradúzcalo, ó hable con alguien que lo entiende. Para mas información por favor llame (713) 837-0600.

City of Houston Water Service Areas

Most City of Houston customers receive their drinking water from the Main System.



THESE TABLES SHOW WHAT CONTAMINANTS WERE DETECTED IN YOUR DRINKING WATER IN 2000*; NONE WERE ABOVE THE MCL.

** 2000 data unless otherwise specified*

2. Montgomery County Muds 48 & 58

CONTAMINANT (units)	MCLG	MCL (max. level allowed)	City of Houston GROUNDWATER	SOURCES OF CONTAMINANTS
Arsenic (ppb)	N/A	50	2.1	Erosion of natural deposits
Barium (ppm)	2	2	0.171	Discharge of drilling wastes; erosion of natural deposits
Copper (ppm)	AL=1.3	90 % below AL=1.3	0.546 at customer tap - none exceeded AL (1999)	Erosion of natural deposits; corrosion of household plumbing
Fluoride (ppm)	4	4	0.5	Erosion of natural deposits
Lead (ppb)	0	90% below AL=15	1.6 at customer tap - none exceeded AL (1999)	Erosion of natural deposits; corrosion of household plumbing
Total Trihalomethanes (TTHMs) (ppb)	N/A	100	6.8 average 0.8 - 12.7 range	By-product of drinking water disinfection

3. Harris County MUD 159

Willowbrook Mall, The Commons at Willowbrook

CONTAMINANT (units)	MCLG	MCL (max. level allowed)	City of Houston GROUNDWATER	SOURCES OF CONTAMINANTS
Alpha emitters (pCi/l)	0	15	7.4	Erosion of natural deposits
Arsenic (ppb)	N/A	50	2.0	Erosion of natural deposits
Barium (ppm)	2	2	0.251	Discharge of drilling wastes; erosion of natural deposits
Copper (ppm)	AL=1.3	90 % below AL=1.3	0.257 at customer tap - none exceeded AL (1999)	Erosion of natural deposits; corrosion of household plumbing
Fluoride (ppm)	4	4	0.3	Erosion of natural deposits;
Lead (ppb)	0	90% below AL=15	3.8 at customer tap - none exceeded AL (1999)	Erosion of natural deposits; corrosion of household plumbing
Nitrate (ppm)	10	10	0.21	Runoff from fertilizer use; erosion of natural deposits
Selenium (ppb)	50	50	5.1	Erosion of natural deposits
Total Radium (pCi/l)	0	5	0.5	Erosion of natural deposits

4. Utility District 5 (Kingwood)

CONTAMINANT (units)	MCLG	MCL (max. level allowed)	City of Houston GROUNDWATER	SOURCES OF CONTAMINANTS
Alpha emitters (pCi/l)	0	15	4.2 (1999)	Erosion of natural deposits
Arsenic (ppb)	N/A	50	2.3 (1999)	Erosion of natural deposits
Barium (ppm)	2	2	0.297 (1999)	Discharge of drilling wastes; erosion of natural deposits
Coliform Bacteria	0	less than 5% positive	highest monthly % of positive samples = 2.2	Naturally present in the environment
Copper (ppm)	AL=1.3	90 % below AL=1.3	0.359 at customer tap - none exceeded AL (1999)	Erosion of natural deposits; corrosion of household plumbing
Fluoride (ppm)	4	4	0.7 (1999)	Water additive which promotes strong teeth
Lead (ppb)	0	90% below AL=15	1.1 at customer tap - none exceeded AL (1999)	Erosion of natural deposits; corrosion of household plumbing
Nitrate (ppm)	10	10	0.02 (1999)	Runoff from fertilizer use; erosion of natural deposits
Total Radium (pCi/l)	0	5	1.0 (1999)	Erosion of natural deposits
Total Trihalomethanes (TTHMs) (ppb)	N/A	100	3.7 average <0.5 - 43.5 (1 site)	By-product of drinking water disinfection

5. Willowchase

CONTAMINANT (units)	MCLG	MCL (max. level allowed)	City of Houston GROUNDWATER	SOURCES OF CONTAMINANTS
Alpha emitters (pCi/l)	0	15	7.6	Erosion of natural deposits
Arsenic (ppb)	N/A	50	2.0	Erosion of natural deposits
Barium (ppm)	2	2	0.241	Discharge of drilling wastes; erosion of natural deposits
Beta/photon emitters (pCi/l)	0	50	4.3**	Decay of natural and man made deposits
Copper (ppm)	AL=1.3	90% below AL=1.3	0.094 at customer tap - none exceeded AL (1999)	Erosion of natural deposits; corrosion of household plumbing
Fluoride (ppm)	4	4	0.1	Erosion of natural deposits
Lead (ppb)	0	90% below AL=15	11.2 at customer tap - one exceeded AL (1999)	Erosion of natural deposits; corrosion of household plumbing
Nitrate (ppm)	10	10	0.18	Runoff from fertilizer use; erosion of natural deposits
Total Radium (pCi/l)	0	5	0.4	Erosion of natural deposits
Selenium (ppb)	50	50	3.0	Erosion of natural deposits
Total Trihalomethanes (TTHM) (ppb)	N/A	100	2.2 average <0.5 - 4.3 range	By-product of drinking water disinfection
Total Xylenes (ppm)	10	10	6.0008 average <10.0005 - 0.0016 range	Petroleum products

INFORMATION COLLECTION RULE DISINFECTION BY-PRODUCTS

1998 Average	Haloacetic Acids (ppb)	Haloacetonitriles (ppb)	Haloketones (ppb)	Chloropicrin (ppb)	Chloral Hydrate (ppb)	Total Organic Halides (ppb)
East Plant I & II (surface water)	57.3	6.5	3.6	0.9	1.7	185.0
East Plant III (surface water)	60.5	7.2	3.8	1.2	2.1	211.9
Southeast Plant (surface water)	34.6	1.7	3.8	0.8	2.8	234.1
Katy Addicks Plant (groundwater)	5.3	0.8	ND	ND	ND	ND

*** EPA considers 50 pCi/l to be the level of concern for beta particles.*

THESE TABLES SHOW WHAT CONTAMINANTS WERE DETECTED IN YOUR DRINKING WATER IN 2000*; NONE WERE ABOVE THE MCL.

6. Spanish Cove

CONTAMINANT (units)	MCLG	MCL (max. level allowed)	City of Houston GROUNDWATER	SOURCES OF CONTAMINANTS
Arsenic (ppb)	N/A	50	3.2 (1998)	Erosion of natural deposits
Barium (ppm)	2	2	0.356 (1998)	Discharge of drilling wastes; erosion of natural deposits
Beta/photon emitters (pCi/l)	0	50	4.9 (1995)	Decay of natural and man-made deposits
Coliform Bacteria	0	Less than 5% posiitive	Highest monthly % of positive samples=16.7 (1 sample positive November 2000)	Naturally prresent in the environment.
Copper (ppm)	AL=1.3	90 % below AL=1.3	0.18 at customer tap - none exceeded AL	Erosion of natural deposits; corrosion of household plumbing
Fluoride (ppm)	4	4	0.12 (1998)	Erosion of natural deposits;
Lead (ppb)	0	90% below AL=15	1.2 at customer tap - none exceeded AL	Erosion of natural deposits; corrosion of household plumbing

7. Harris County WCID 76

CONTAMINANT (units)	MCLG	MCL (max. level allowed)	City of Houston GROUNDWATER	SOURCES OF CONTAMINANTS
Alpha emitters (pCi/l)	0	15	9.3 (1998)	Erosion of natural deposits
Barium (ppm)	2	2	0.305	Discharge of drilling wastes; erosion of natural deposits
Beta/photon emitters (pCi/l)	0	50	5(1998)	Decay of natural and man-made deposits
Copper (ppm)	AL=1.3	90 % below AL=1.3	0.382 at customer tap - none exceeded AL (1999)	Erosion of natural deposits; corrosion of household plumbing
Fluoride (ppm)	4	4	0.3 (1997)	Erosion of natural deposits;
Lead (ppb)	0	90% below AL=15	5.5 at customer tap - one tap exceeded AL (1999)	Erosion of natural deposits; corrosion of household plumbing
Total Radium (pCi/l)	0	5	1.52 (1998)	Erosion of natural deposits

8. Hunterwood

CONTAMINANT (units)	MCLG	MCL (max. level allowed)	City of Houston GROUNDWATER	SOURCES OF CONTAMINANTS
Arsenic (ppb)	N/A	50	6.4	Erosion of natural deposits
Barium (ppm)	2	2	0.292	Discharge of drilling wastes; erosion of natural deposits
Copper (ppm)	AL=1.3	90 % below AL=1.3	0.150 at customer tap - none exceeded AL (1999)	Erosion of natural deposits; corrosion of household plumbing
Fluoride (ppm)	4	4	0.5	Erosion of natural deposits;
Lead (ppb)	0	90% below AL=15	4.0 at customer tap - one tap exceeded AL (1999)	Erosion of natural deposits; corrosion of household plumbing

9. District 82

Calvin Village, Hidden Echo, Magnolia Point, Paradise Oaks, and Plantation Hill Subdivisions

CONTAMINANT (units)	MCLG	MCL (max. level allowed)	City of Houston GROUNDWATER	SOURCES OF CONTAMINANTS
Alpha emitters (pCi/l)	0	15	2.1 (1998)	Erosion of natural deposits
Beta/photon emitters (pCi/l)	0	50	4.0 pCi/l	Decay of natural and man-made deposits
Copper (ppm)	AL=1.3	90 % below AL=1.3	0.058 at customer tap - none exceeded AL	Erosion of natural deposits; corrosion of household plumbing
Fluoride (ppm)	4	4	0.5	Erosion of natural deposits;
Lead (ppb)	0	90% below AL=15	1.8 at customer tap - none exceeded AL	Erosion of natural deposits; corrosion of household plumbing
Total Xylenes (ppm)	10	10	0.0028	Petroleum products

10. Belleau Wood

CONTAMINANT (units)	MCLG	MCL (max. level allowed)	City of Houston GROUNDWATER	SOURCES OF CONTAMINANTS
Barium (ppm)	2	2	0.3 (1998)	Discharge of drilling wastes; erosion of natural deposits
Copper (ppm)	AL=1.3	90 % below AL=1.3	0.081 at customer tap - none exceeded AL (1999)	Erosion of natural deposits; corrosion of household plumbing
Fluoride (ppm)	4	4	0.1 (1998)	Erosion of natural deposits;
Lead (ppb)	0	90% below AL=15	2.1 at customer tap - none exceeded AL (1999)	Erosion of natural deposits; corrosion of household plumbing
Total Trihalomethanes (TTHMs) (ppb)	N/A	100	2.1 (1998)	By product of drinking water disinfection.

11. District 73

Covecrest, Lakewood Heights, Lakeside Manor, Lakewood Village, Scotts Point, Shorewood, and Trott Subdivisions

CONTAMINANT (units)	MCLG	MCL (max. level allowed)	City of Houston GROUNDWATER	SOURCES OF CONTAMINANTS
Alpha emitters (pCi/l)	0	15	3.5 (1997)	Erosion of natural deposits
Barium (ppm)	2	2	0.289	Discharge of drilling wastes; erosion of natural deposits
Copper (ppm)	AL=1.3	90 % below AL=1.3	0.119 at customer tap - none exceeded AL (1999)	Erosion of natural deposits; corrosion of household plumbing
Ethylbenzene (ppb)	700	700	3.0 average < 0.5 - 6.0 range	Petroleum products
Fluoride (ppm)	4	4	0.2	Erosion of natural deposits;
Lead (ppb)	0	90% below AL=15	2.2 at customer tap - one tap exceeded AL (1999)	Erosion of natural deposits; corrosion of household plumbing
Nitrate (ppm)	10	10	0.03	Runoff from fertilizer use; erosion of natural deposits
Selenium (ppb)	50	50	3.2	Erosion of natural deposits
Toluene (ppm)	1	1	0.0013 average < 0.0005 - 0.0025	Petroleum products
Total Radium (pCi/l)	0	5	0.51 (1997)	Erosion of natural deposits
Xylenes (ppm)	10	10	0.020 average < 0.001 - 0.040	Petroleum products

12. Forest Cove

CONTAMINANT (units)	MCLG	MCL (max. level allowed)	City of Houston GROUNDWATER	SOURCES OF CONTAMINANTS
Alpha emitters (pCi/l)	0	15	3.0 (1999)	Erosion of natural deposits
Barium (ppm)	2	2	0.258 (1999)	Discharge of drilling wastes; erosion of natural deposits
Copper (ppm)	AL=1.3	90 % below AL=1.3	0.1 at customer tap - none exceeded AL (1998)	Erosion of natural deposits; corrosion of household plumbing
Lead (ppb)	0	90% below AL=15	13.8 at customer tap - two exceeded AL (1998)	Erosion of natural deposits; corrosion of household plumbing
Nitrate (ppm)	10	10	0.04 (1999)	Runoff from fertilizer use; erosion of natural products
Nitrite (ppm)	1	1	0.01 (1999)	Runoff from fertilizer use; erosion of natural products

2000 data unless otherwise specified

UNREGULATED CONTAMINANTS

CONTAMINANT (units)	** Main System	Forest Cove	Belleau Wood	District 82	Willowchase	Kingwood UT. Dist. 5	Montgomery Country MUD 48 & 58	District 73
Chloroform (ppb)	2.8 Average <0.5 - 26 range	0.5 average <0.5-1.0 range	<0.5 (1998)	0.7	<0.5 average <0.5-0.7 range	<0.5 average <0.5-4.5 range	<0.5 average <0.5-0.6 range	27 average <0.5-53 range
Bromodichloromethane (ppb)	3.3 average <0.5 - 23 range	0.9 average 07-1.1 range	0.6 (1998)	0.6	0.5 average <0.5-1.0 range	1.0 average <0.5-13.4 range	0.9 average <0.5-1.8 range	10 average <0.5-20 range
Dibromochloromethane (ppb)	4.0 average <0.5 - 23 range	0.7 average 0.6-0.8 range	0.9 (1998)	<0.5	0.7 average <0.5-1.3 range	1.3 average <0.5-21.4 range	2.8 average 0.8-4.8 range	3.6 average <0.5-7.1 range
Bromoform (ppb)	2.8 average <0.5 - 41range	ND	0.6 (1998)	<0.5	0.7 average <0.5-1.3 range	0.6 average <0.5-7.4 range	2.8 average <0.5-5.5 range	0.7 average <0.5-1.4 range
Dibromomethane (ppb)	ND	ND	ND	ND	ND	ND	<1 average <1.-1.3 range (1999)	ND
Acetone (ppb)	ND	ND	ND	ND	ND	ND	ND	<10 average <10-10-range
4-methyl-2-pentanone (MIBK) (ppb)	<2 average <2-5.4 range, (6 GW plants)	ND	ND	ND	ND	ND	ND	7 average <2-14 range
Chloroethane (ppb)	<2 average 2.2 (1 GW plant)	ND	ND	ND	ND	ND	ND	ND
Chloromethane(ppb)	<2 average, 2.1-2.5 range (3 GW plants)	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK) (ppb)	<10 average 10 and 20 (2 GW plants)	ND	ND	ND	ND	ND	ND	ND

***** GW = Groundwater***